

The affairs of the Association are directed by a Board of Directors elected from the membership. The general management of the Association and its staff are under the direction of the President, who is also a member of the board.

The Board of Directors has created six standing committees, each chaired by a member of the Board, to establish policy and carry out specialized programs in the areas of Small Business, Technical, Membership and Scope, Marketing and Trade Shows, International Relations, and Public Policy and Government Relations. Staff-level activities are grouped in the Office of the President, a Finance and Administration Department, a Standards and Technology Department, a Trade Show Department, and a Legal and External Affairs Department.

In addition to the general activities of the Association, member companies have the option of associating with one or more of the TIA Product Divisions, dealing in Fiber Optics, Mobile Communications, Network Equipment, and User Premises Equipment. The chairmen of the Product Divisions are Advisors to the Board of Directors.

2.2 Standards and Technology Department

The Standards and Technology Department is a specialized staff-level activity of the Association providing engineering-related services to the various TIA Divisions, the standing committees, and the TIA general membership. All TIA engineering committees are located within the Standards and Technology Department. TIA Divisions outline their technical needs to the Standards and Technology Department for action, the results of which may take the form of TIA Standards, Specifications, Engineering Bulletins, or other publications, technical positions on government regulations or military specifications, formulation of positions on international and regional standards, or the sponsoring of technical conferences and symposia.

2.3 Administration

The Standards and Technology Department is headed by a Vice President, Standards and Technology, who reports to the President and is responsible for carrying out the engineering activities of the Department. The responsibilities of the Vice President include the management of the Standards and Technology Department Staff and facilities and general guidance of the activities of the committees.

One or more Staff Engineers or Technical Assistants may be provided to assist the Vice President, Standards and Technology in the conduct of work of the Standards and Technology Department.

2.4 Structure

2.4.1 TIA Technical Committee

The Technical Committee is one of the standing committees created by the Board of Directors and chaired by a member of the Board. The Technical Committee has overall responsibility for establishing the broad technical policy of the association, including the organization and operating policies of the Standards and Technology Department.

2.4.2 TIA Technical Standards Subcommittee (TSSC)

The Technical Standards Subcommittee (TSSC) is a special subcommittee of the TIA Technical Committee. TSSC provides the review mechanism on all standards proposals recommended by the engineering committees. This review verifies that the standards proposal has been prepared in full compliance with the rules and procedures of TIA for such programs and further verifies that the balloting process has met the requirements of the American National Standards Institute (ANSI).

The TSSC does not review standards proposals for technical content.

The Chairman of the TIA Technical Committee, who is a member of the TIA Board of Directors, also serves as chairman of TSSC. The membership of the TSSC shall include, in addition to the chairman:

- each TIA Division chairman or his designee;
- the Chairman of each of the TR and FO committees;
- the Vice President, Standards and Technology, *ex officio*.

Other members may be added by action of the Technical Standards Subcommittee (see Annex A, section A3).

3 ENGINEERING COMMITTEES

The work of the Standards and Technology Department is conducted through its engineering committees with the assistance of the Standards and Technology Department Staff.

3.1 Establishment of Committees

By resolution of the TIA Board of Directors, the chairman of the Technical Committee has authority to create Engineering Committees and to dissolve those that are no longer needed. Such committees normally will be organized to correspond to the appropriate product structures of the TIA Product Divisions and will be sponsored by

those divisions (Fiber Optic, Mobile Communications, Network Equipment, and User Premises Equipment), and their expenses will be underwritten by those divisions. Committees also may be organized directly under the auspices of the TIA Technical Committee when the planned work is interdisciplinary or when other circumstances dictate.

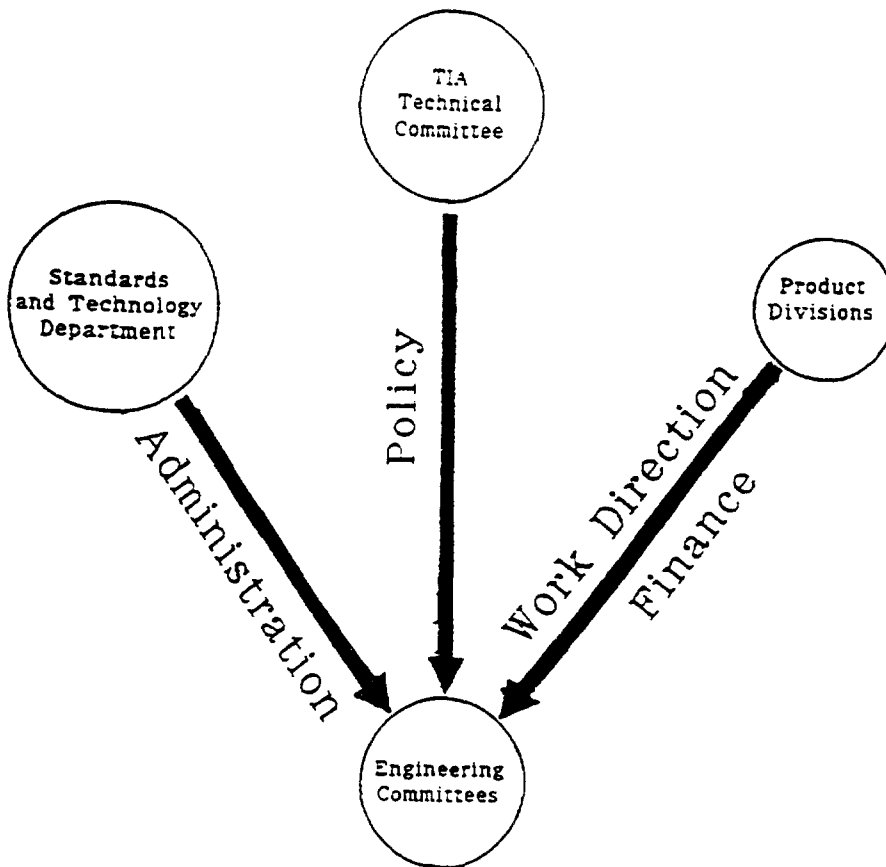


Figure 2

The chairman of a newly-formed Engineering Committee will be appointed by the chairman of the Technical Committee from eligible candidates recommended by the chairman of the sponsoring division or the Vice President, Standards and Technology, as appropriate. If a chairmanship should become vacant on an existing committee, a new chairman will be appointed by the chairman of the Technical Committee from eligible candidates recommended by the engineering committee membership.

Subcommittees, Working Groups, or Task Groups may be established by an engineering committee if deemed necessary to carry out its mission.

- (1) **Subcommittees** normally will be formed when it is desirable to divide responsibility for the subject matter falling within the scope of an engineering committee. Subcommittees, like their parent committees, have no fixed term of existence and are intended to continue to exist until there is no need. Subcommittee chairmen shall be appointed by the chairman of the parent committee from eligible candidates recommended by the committee membership.
- (2) **Working Groups** are established by a committee or subcommittee for specific purposes, such as (but not limited to) developing a specific standard or specification, and are to be dissolved when their function is no longer required.

If a Working Group is assigned the role of developing a standard or specification, the working group chairman shall provide the Standards and Technology Department with current information for the maintenance of lists of members, voting representatives, and supplemental representatives.

- (3) **Task Groups** are ad hoc bodies that are formed by a Committee, Subcommittee, or Working Group to address a specific problem as part of the larger body. Task Groups meet informally and do not have a standard-formulating mission. They are dissolved when the purpose for which they were formed has been completed.

NOTE: The generic term "**formulating group**" is used in this manual to refer to an Engineering Committee, a Subcommittee, or a Working Group (when it is assigned a standards developing task), but not to a Task Group.

An alphanumeric designation of the pattern *TR-15* will be assigned to each Engineering Committee by the TIA Standards and Technology Department. Subcommittees shall be designated by the addition of a decimal and a numerical suffix; e.g., *TR-15.1*, and Working Groups shall be designated by the addition of a further decimal and numerical suffix; e.g., *TR-15.1.1*.

3.2 Membership

3.2.1 Eligibility

Membership in Engineering Committees and their subelements is open to U. S. companies¹ having a direct and material interest within the respective jurisdiction of the formulating groups. TIA membership is not a prerequisite to participation. Persons participating in such programs should be technical personnel. Under some circumstances, eligibility for membership may be limited by circumstances beyond TIA's control, such as government regulations, the need for security clearances, etc. Any question as to eligibility shall be referred to the TIA Vice President, Standards and Technology.

In order for a formulating group to work effectively it is highly desirable that all interest categories² be represented in TIA formulating groups, and it is an absolute requirement that no interest category be intentionally excluded. Chairmen of Engineering Committees are expected to make an affirmative effort to obtain full representation of all interest categories in formulating groups under their jurisdiction and to avoid domination by any one group. Where an imbalance exists in spite of such efforts, the Chairman has an additional responsibility to ensure that no one interest category constitutes more than 50% of the

¹ A U.S. company (or comparable body) is a corporation, partnership, or sole proprietorship having a permanent place of business in the United States, its territories or possessions. Such a company need not be U.S.-owned and may be a subsidiary of a foreign company. Comparable bodies include associations, trade unions, institutions, and the like, having a permanent place of business in the United States.

² Typically, **Manufacturer** (of the product or device being standardized); **User** (of the product or device being standardized); **Other User** (of the standard but not necessarily the product, such as testing laboratories, manufacturers of products or devices connecting to or associated with the product or device being standardized, or network operators; and **General Interest**. Other categories may be more appropriate, depending upon the nature of the standard.

parties receiving ballots during the public comment period (see 6.4). **Note:** The 50% limit applies to the writing of most standards. In the case of safety standards, ANSI requires that no one interest group should constitute more than 1/3 of the parties receiving ballots during the comment period.

3.2.2 Eligibility for Chairmanship

Acceptance of the chairmanship of a TIA Engineering Committee represents a major commitment of talent and support resources by an employer. In order to ensure that such a commitment exists and will be ongoing, it is TIA's policy that chairmen of Engineering Committees are to be selected from among qualified representatives of private sector companies having a direct and material interest in the work of the committee. It is preferred, but not required, that chairmen be representatives of TIA member companies³. In all cases, chairmen shall be representatives of the private sector.

Chairmen of Subcommittees, Working Groups, and Task Groups should preferably be representatives of TIA member companies and, in any event, shall be representatives of organizations holding voting status in the engineering committee to which their subcommittee or working group is attached.

3.2.3 Company Representation

3.2.3.1 Voting Representative

Membership in TIA formulating groups is vested in companies (or comparable bodies) whether TIA member or nonmember⁴. An individual designated by the company is placed on the list of voting representatives and exercises full membership privileges.

Representatives on Engineering Committees and subelements are considered to be acting for their respective companies in developing an industry position on issues before such formulating

³ TIA member companies, for the purpose of this document, are companies holding general class membership in good standing in the Telecommunications Industry Association. Associate members in TIA are not afforded the services of the Standards and Technology Department. Companies which are not general-class members of TIA, but which hold voting status in TIA Engineering Committees, are not classified as TIA member companies. Further information may be found in the bylaws of the Telecommunications Industry Association.

⁴ Non-member participation fees may be charged. See 3.2.8. Further details are available from the Standards and Technology Department.

groups. Voting representation from any company is limited to one representative on any formulating group or subelement. Where a company includes several divisions or subsidiaries, voting representation is limited to one person from that company unless it can be shown that the operations are so different as to represent different interest categories.

3.2.3.2 Alternate Voting

When the designated voting representative is not present at a formulating group meeting or is unavailable to respond to a mail ballot, any other employee or representative of that company may be designated by it to exercise formulating group membership privileges, including voting, on behalf of that member. In such case, only one such company representative may vote.

3.2.3.3 Supplemental Representative

In addition to the voting representatives list referred to above, TIA maintains a supplemental mailing list, and individuals whose names appear on this list receive copies of all formulating group correspondence mailed by TIA.

Nonmembers of TIA holding voting membership status in a formulating group may place additional names on the supplemental mailing list upon payment of a service fee per name, per list.

Member companies of TIA may place a reasonable number of names on the supplemental mailing list without charge.

Persons whose names appear on the supplemental mailing list are not recognized as the voting representative, but when a vote is cast in the absence of the regular voting representative (3.2.2.2 above), it is desirable that it be cast by an individual who has been receiving formulating group correspondence through the supplemental mailing list and who has been participating regularly in formulating group meetings.

3.2.3.4 Multiple Votes

No individual may vote or cast a ballot on behalf of more than one member. No proxy or absentee ballots will be recognized.

3.2.4 Government Participation

TIA encourages the active participation of U.S. federal, state, or local government representatives on its standards formulating groups. In recognition of the difficulty generally experienced by government employees in obtaining funding for normal participation fees, this opportunity for participation is extended on a nonvoting

basis, and all fees are waived. The names of such participants will be entered on the supplemental mailing list of the formulating groups, entitling those representatives to all formulating group-related correspondence mailed by TIA. The level of active participation by such government designees will be reviewed periodically, and the names may be removed for nonparticipation (see 3.2.5).

Whenever a government representative requests voting status on TIA standards formulating groups, such status shall be granted, provided there is only one representative of that U.S. federal, state, or local government serving on that formulating group in that status, and provided that the normal nonmember participation fees are paid by that U.S. federal, state, or local government.

3.2.5 Membership Continuation

Continuation in voting status as a member of any formulating group or subelement depends upon active participation in the work program.

The criterion for removal of a company from voting status is absence from three consecutive meetings. Failure to respond to a formulating group mail ballot shall be counted as an absence for this purpose. When a company holding voting member status in a formulating group has gone unrepresented for three successive meetings, the chairman should notify the company of its failure to meet minimum participation requirements and may remove the company and its representatives from the list of voting members.⁵ Reinstatement is immediate upon resumption of participation in the committee's work.

Formulating group chairmen are required to enforce the membership continuation rules in order to maintain their ability to raise a quorum at meetings. However, chairmen may use discretion in recognizing extenuating circumstances. (See 5.3.2.)

Formulating group chairmen should also encourage member companies to ensure that the person shown on the mailing lists as their voting representative is in fact the person who attends formulating group meetings.

⁵ The three-meeting rule applies for companies who have been regular participants. If a company has been represented at only one meeting, it may be dropped for failure to attend the next meeting. Similarly, if the company has been represented at only two meetings, it may be dropped after failure to attend the next two meetings.

3.2.6 Liaison Representatives

Formulating group chairmen may appoint nonvoting liaison representatives from other trade associations or professional societies when appropriate. Liaison arrangements are usually made on a reciprocal basis. A liaison representative has full privileges of participation in formulating group activities and will receive committee mailings but may not vote. Fees will be waived when a reciprocal arrangement exists. Requests or recommendations for liaison arrangements with non-U.S. counterpart or regional or international standards bodies should be referred to the Standards and Technology Department.

3.2.7 Non-U.S. Observers

Requests from non-U.S. individuals or companies for observer status should be referred to the Standards and Technology Department.

3.2.8 Fees

Since the operations of the Engineering Committees and the Standards and Technology Department are heavily subsidized from the dues paid by Association members, a charge per meeting commensurate with costs is assessed to companies that are voting members of engineering committees but are not voting members of TIA. In order to encourage participation in the committees by under-represented interest categories, this fee may be waived or reduced for such user groups. The decision to waive or reduce fees on an interest category basis will be the responsibility of the Vice-President, Standards and Technology, after consultation with the committee and the chairman of the sponsoring TIA division.

Companies having a direct and material interest in the matters being considered for standardization in TIA committees, but who can demonstrate that they would be prevented from participation in the standards formulation process by imposition of participation fees or special fees may seek partial or complete abatement of the fees on a hardship basis by contacting the Vice-President, Standards and Technology. Since the cost of travel to attend meetings usually far outweighs the fees, such companies should also consider the alternative of participation in the pool of persons agreeing to receive unsolicited ballots during the public ballot period, since this does not require meeting attendance. See 6.4.

Engineering committees carrying out special projects which require the retention of outside labs or experts may also levy a voluntary assessment on themselves in order to finance the special expenses. Failure to pay such a voluntary assessment shall not bar a member from further participation in the work of the committee or from access to the work product of the outside labs or experts.

3.3 Formulating Group Functions

TIA formulating groups shall confine their activities to the preparation of standards-related projects listed in 4.2, to the development and coordination of U.S. positions with international, regional, and other national standards bodies, and to the furnishing of assistance, information, and recommendations on engineering matters to the product divisions, the standing and special committees, the officers, and the Board of Directors of TIA. In addition, at the direction of their sponsoring divisions or the Standards and Technology Department, they may engage in other engineering related activities in keeping with their scopes and the TIA Legal Guides.

3.4 Responsibilities of a Chairman

The chairman of each TIA engineering committee is responsible for the conduct of group activities in accordance with the procedures prescribed in this manual and the TIA Legal Guides.

In addition to the above, each chairman of an engineering committee is responsible for overseeing subordinate subcommittees and working groups and for the preparation of an annual report on committee activities to be furnished to the Standards and Technology Department and the Technical Committee. Each engineering committee chairman may appoint a vice chairman from among eligible candidates proposed by the committee membership.

Appropriate liaison shall be established whenever a matter in the work of an Engineering Committee may concern another Department, Division, or Standing Committee within the Association.

Subcommittee chairmen shall provide the Standards and Technology Department with current information for the maintenance of lists of members, voting representatives, and supplemental representatives.

4 DEVELOPMENT OF A WORK PROGRAM

4.1 Formulating Group Scope

When a new Engineering Committee has been established, the chairman of that committee shall submit a proposed committee scope, defining the technical area of responsibility, for the review and approval of the TIA Vice President, Standards and Technology and the appropriate ANSI Standards Board. When approved and published, that Scope becomes the principal guide for the work of the committee.

Scopes of all Engineering Committees and Subcommittees are

published by the Standards and Technology Department in a Committee Scope Manual supplied to all Engineering formulating group chairmen. Limited additional copies may be requested from the Standards and Technology Department.

4.2 Types of Projects

Engineering Committees may initiate projects to produce the following types of TIA documents:

- (1) Standards;
- (2) Specifications;
- (3) Trial Use Standards (as a step enroute to a standard);
- (4) Bulletins;
- (5) Engineering Publications;
- (6) input documents to other standards bodies.
- (7) such other projects as may be authorized by the chairman of the sponsoring division or by the chairman of the Technical Committee.

4.3 Project Initiation

An engineering committee or subcommittee may initiate a project by submitting a completed Project Request (Annex B) to the TIA Standards and Technology Department. Upon approval, a project number will be assigned, and the committee will be so informed. The project number will be used to identify the drafts through each stage of the development process. For any project which is expected to result in the publication of a American National Standard, Specification, or Trial Use Standard, the Project Request must be accompanied by ANSI Form PINS-1, *ANSI Project Initiation Notification System (PINS) Input Form*. (A copy of the ANSI PINS form is also found in Annex B.)

4.4 Assignment of Work

Upon assignment of a project number, TIA will circulate project information to known persons or organizations who may be affected by the completed work. An approved project shall be assigned by the Engineering Committee to a Subcommittee, a Working Group of a Subcommittee, or itself for implementation.

4.5 Consensus Development

Standards and other work products shall be produced by consensus; i.e., work shall continue until substantial agreement is reached by the members of the formulating group. Although unanimity is desirable, it is not required to produce a work product. Consensus is achieved through a process of discussion, correspondence, draft contributions, and revision, all leading to the final result. Final adoption of text shall be by the voting membership of the Engineering Committee. (Engineering Committees may delegate this final adoption authority to their subcommittees.)

4.6 Format and Style

Formulating groups shall follow the *TIA Style Manual* in processing contributions and developing draft documents.

5 MEETINGS

5.1 Meeting Location and Facilities

Formulating group chairmen should consider convenience and travel costs for members, costs to TIA, and appropriateness of facilities when selecting meeting locations. TIA has conference rooms available for meetings. The TIA staff can also provide assistance in locating and dealing with commercial meeting facilities such as hotels and conference centers. When it is necessary to schedule a meeting at a location which will involve costs to TIA, arrangements shall be made only by TIA staff.

Meetings also may be scheduled at company facilities provided by formulating group members or underwritten by members at commercial facilities, subject to the following guidelines:

- (1) Host companies should refrain from hospitality actions such as dinners and receptions.
- (2) Attendees should not be subjected to sales or product presentations unless the formulating group requested such a presentation for reasons related to their deliberations.
- (3) Gifts or other promotional items of value should not be given to attendees.
- (4) The requirement for security clearances for attendees should be avoided.

5.2 Meeting Notices, Agenda and Reports

5.2.1 Meeting Notices

Chairmen shall coordinate meeting arrangements with the TIA Standards and Technology Department and shall forward to that department the information necessary for preparation of a meeting notice (Annex C) at least four weeks prior to the scheduled meeting. Unless the chairman requests earlier mailing, TIA will mail the meeting notices two to four weeks before the meeting to the mailing list(s) designated by the chairman.

Once meeting dates and locations are established, chairmen may use preliminary meeting notices to allow participants ample time for travel arrangements.

5.2.2 Agenda

Detailed agenda shall be forwarded to TIA concurrently with the meeting notice information. If more than one formulating group is meeting concurrently at the same place, the chairman of the senior group shall consolidate the agenda for all such groups.

The agenda should list the items to be discussed, and shall clearly indicate any substantive items to be voted upon at the meeting. Examples of such items are:

- (1) the reaffirmation, revision or rescission of existing standards;
- (2) approval of standards proposals for industry ballot for issue;
- (3) adoption or revision of formulating group procedures;
- (4) changes in formulating group scope; or
- (5) termination of the formulating group.

Action on substantive items which have not been the subject of prior notification in the published agenda may be deferred to a letter ballot if requested by a formulating group member.

Reference in the agenda to any document should be specific, using project or publication numbers, to avoid confusion and misunderstanding. Well-prepared agenda expedite the work of the formulating group. Typical agenda are included in Annex C.

5.2.3 Meeting Reports

Each chairman may appoint a secretary to record and prepare a meeting report for each meeting. In the absence of the secretary, the chairman is responsible for preparation of the report.

Meeting reports are not "minutes" in the strict sense of the term, since a detailed record of all comments and discussions is not required. The report shall include the date and place of the meeting, a list of persons in attendance, a statement that a quorum was (or was not) present, actions taken, significant unresolved issues, voting records, a document list (see 5.2.3.1), future meeting schedules (if applicable), and time of adjournment.

The secretary shall prepare the meeting report in accordance with the format contained in Annex D. The meeting report shall be signed by both the secretary and the chairman and forwarded to the TIA Standards and Technology Department for review and distribution. No distribution of the meeting report may be made in any form prior to review and approval by the TIA Standards and Technology Department. (See 5.2.3.2.)

The original attendance list shall be attached to the meeting report and may serve in lieu of the list of persons in attendance if all names are clearly legible when reproduced.⁶ Short working documents not available at the meeting may be appended to the meeting report. When a large document falls into that category, its pertinent material should be abstracted. Lengthy reports and attachments are usually far more expensive to process and mail than their use justifies.

Subcommittee and Working Group reports may optionally be included with the meeting report of the parent committee or Subcommittee if the meeting took place in conjunction with a meeting of the parent committee.

The TIA Standards and Technology Department normally circulates meeting reports to:

- (1) members of the formulating group;
- (2) individuals listed on the supplemental mailing list (those receiving everything that goes to members);
- (3) "Others Present" when their complete mailing addresses are supplied by the chairman or secretary to the Standards and Technology Department.

Meeting reports shall contain the following statement as the last paragraph before the signature(s):

⁶ The permanent archives of the Standards and Technology Department are retained on microfilm. This places a higher standard of legibility on original documents.

"This meeting was conducted in accordance with the TIA Legal Guides and the Engineering Manual."

Availability of accurate meeting reports from previous meetings is essential to the orderly conduct of meetings. It is the responsibility of the chairman and the secretary to submit meeting reports to TIA in sufficient time to allow for their approval and distribution prior to the next regularly scheduled meeting.

5.2.3.1 Document Record

A document list identifying all documents distributed at or in preparation for the meeting shall be made a part of the meeting report, but items appearing on the document list should not be incorporated in or distributed with the meeting report. TIA meeting reports are intended as a permanent record of formulating group action, and not as a medium of information transmittal for those not attending meetings.

The chairman or secretary present at the meeting shall be responsible for providing TIA with a copy of each document appearing on the document list for archival purposes.

5.2.3.2 Legal Approvals

All meeting reports shall be submitted for legal review to ensure the actions were in compliance with antitrust and liability laws. Strict compliance with this requirement serves to protect the committee members and the association from allegations of wrongdoing.

All meeting reports shall be approved by the cognizant Staff Engineer or the Vice President, Standards and Technology, and the TIA General Counsel before any distribution is made. After TIA staff approval, the meeting report is distributed to the committee and approved by the committee as a part of the permanent legal record.

5.3 Conduct of Meetings

5.3.1 General

All meetings shall be conducted in accordance with the Legal Guides contained in Annex E. The chairman is responsible for "getting the most" from a meeting so that the time and expense of all present can be justified. This requires that the agenda be followed and that discussion be kept pertinent to the agenda.

The meeting may be conducted formally or informally at the dis-

cretion of the chairman depending upon size of the body and the nature of the work at hand.

5.3.2 Quorum

A quorum of a formulating group, consisting of a simple majority of the listed voting member companies, is required to conduct business.

If a quorum is not present, no final action may be taken, but material may be formulated and distributed to the formulating group for action by letter ballot.

5.3.3 Voting Procedures

Voting may be conducted in meetings or may be accomplished by letter ballot.

5.3.3.1 Voting in Formulating Group Meetings

Each formulating group member company represented shall have one vote. If the chairman's company is represented by a voting representative other than the chairman, the chairman is without vote. Absentee voting is not permitted.

NOTE: Chairmen should recognize that while a simple majority of those present (assuming a quorum) is sufficient for procedural matters, it is generally unwise to act on items such as proposed standards material unless a consensus is evident.

5.3.3.2 Letter Ballots

The chairman or secretary shall forward the exact wording of the question to be resolved by the letter ballot and any attached material to the TIA Standards and Technology Department. The staff will prepare a letter ballot and mail it to the last known address of each voting member of the formulating group. See 6.5 for the ballot options. All responses received within the specified voting period will be forwarded to the chairman or secretary as specified.

The period for voting on formulating group letter ballots shall be 30 days from the date of issuance unless otherwise noted on the ballot with the approval of the cognizant chairman. A letter ballot shall be considered to have been approved when it receives affirmative votes from two-thirds of the members of the formulating group who voted during that 30-day period. If such affirmative vote is not realized, the matter shall be carried over as an agenda item for the next meeting.

6. DEVELOPMENT OF TIA STANDARDS AND SPECIFICATIONS

6.1 Definitions

TIA Standard - A document that establishes engineering and technical requirements for processes, procedures, practices and methods that have been decreed by authority or adopted by consensus. Standards may also be established for selection, application and design criteria for materiel.

TIA Specification - A document prepared specifically to facilitate procurement that clearly and accurately describes the essential technical requirements for purchased materiel. Procedures necessary to determine that the requirements for the purchased materiel covered by the specification have been met shall also be referenced or included.

TIA Trial Use Standard - A draft standard intended for subsequent submittal to ANSI for approval as an American National Standard, published and maintained by TIA as a trial use standard for a period not to exceed three years to allow for industry experience with the standard or to allow time for stabilization of an emerging technology.

6.2 TIA Standards and Specifications

TIA Standards or Specifications are issued to achieve one or more of the following purposes:

- (1) promoting interchangeability and interoperability of products falling within the scope of TIA Engineering Committees;
- (2) eliminating misunderstandings or confusion between manufacturers and buyers with respect to products on which TIA standards or specifications are adopted;
- (3) providing assistance to the purchaser in selecting and obtaining the proper product for a particular need;
- (4) improving the quality of products covered by TIA Standards or Specifications.

Technical standardization work of the TIA consists of discussion in an open forum by technical representatives from a wide spectrum of industry, leading to a consensus on electrical, mechanical, optical, environmental, quality, reliability and other properties of telecommunications components, equipment and systems. It also includes the drafting, review, approval and issuance of standards and specifications based upon that consensus, and the maintenance

of standards and specifications once issued. Where appropriate, and where the requirements of ANSI have been met, such material will be proposed as a TIA Trial Use Standard, an ANSI/TIA Standard, or an ANSI/TIA Specification.

TIA Standards and Specifications are published in a uniform format described in the *TIA Style Manual*.

6.3 Establishing a Standards Project

After review and approval of a project request submitted by a formulating group (see 4.3), the staff will assign a four-digit identifying number. This four-digit number will have the prefix PN- during the development process. The prefix will change to SP- (standards proposal) when it is circulated for industry ballot.

The information from the Project Request form also will be used to alert persons or organizations who may be affected by the finished standard or specification of the project, affording them the opportunity to participate in the development process.

6.4 Standards Proposal

TIA's process requires that consensus must first be reached in the formulating group before proposing a document for acceptance as a TIA standard and as an American National Standard.

Consensus must again be demonstrated as the result of a public ballot on the proposed standard. There is an additional requirement that the total pool of persons receiving unsolicited ballots⁷ must not be dominated by any one interest category. This pool includes voting, supplemental, government, and liaison representatives on the mailing list of the formulating group, as well as other persons known to have an interest in the subject of the standard, who have agreed in advance to receive and review ballots on the subject.

When consensus is reached within the formulating group and has been formalized by a vote, the chairman shall forward the proposed standards document to the Standards and Technology Department for issuance of a Standards Proposal.

The material submitted to the Standards and Technology Department shall be prepared in accordance with the *TIA Style Manual*. It shall be accompanied by a statement of the background and intended purpose of the standard, and any other information which will

⁷ i.e., other than persons previously unknown to TIA who request a ballot by writing or calling in.

improve industry's understanding of the proposal. The Standards and Technology Department staff will obtain from the chairman a tabulation of the interest categories represented on the mailing list of the formulating group, and will combine this data with information about the remainder of the balloting pool to determine whether there is a dominant interest category. Where domination⁸ by one group is indicated, the staff shall contact the chairman to seek additional candidates for the balloting.

Upon review of the proposed standards document by the Standards and Technology Department and approval by the TIA General Counsel, and upon determination that a balanced balloting pool exists, a ballot will be added to the standards document and the Standards Proposal will be circulated for review and comment to companies, organizations, and individuals who are known to have, or who have indicated that they have, a direct interest in the subject.

Copies of Standards Proposals shall also be available upon request from TIA during the comment period. An appropriate fee, not to exceed the anticipated sales price of the finished standard, may be charged for Standards Proposal copies.

Simultaneously with issuance with the Standards Proposal, ANSI is notified (by use of their BSR-8 form) of the availability of the draft standard for comment. ANSI publishes notice of the Standards Proposal in *ANSI Standards Action*, and establishes a 60-day period during which the public may request copies of the proposal. Balloting is not complete until this period expires.

6.5 Ballot Options

Parties responding to the Standards Proposal (SP-) ballot have three options:

"Yes", without comment. Indicates agreement with the proposed standard.

"Yes", with comment. Indicates general agreement, but suggests enhancements or changes to the proposed standard which, if not acted on, would not cause the party to change his vote. Comments shall be acknowledged by the formulating group chairman, and shall be considered during the comment resolution process (see 6.7). Comments not adopted may be deferred to the next revision of the standard.

"No" (Comments mandatory). Indicates disagreement with the

⁸ Domination exists when one interest category represents more than 50% of the pool of persons being solicited for ballots.

proposed standard for the reasons stated. Comments must be specific as to the points or omissions being objected to, and shall state what changes or actions would resolve the objection. Comments shall be acknowledged by the formulating group chairman and shall be considered during the comment resolution process (see 6.7). Negative ballots received without comments may be counted as unresponsive. Negative ballots received with nonspecific comments or which do not state what changes or actions would resolve the objection may be counted as unresponsive if, after being contacted by the formulating group chairman or his representative, the originator fails to furnish his specific written objections.

"Abstain" (with or without stated reasons for the abstention). A company may return a ballot indicating that it has chosen to abstain from voting. Such ballots are not tallied and comments, if any, do not require acknowledgment or resolution. A returned ballot indicating abstention may be counted as a response for the purpose of meeting membership continuation criteria (See 3.2.5.), and qualifies the respondent to receive a default ballot, if issued.

An unreturned ballot is considered to be a form of abstention but is not counted as a vote or as a response.

6.6 Ballot Results

All ballots received by TIA are forwarded to the chairman of the formulating group. If no negative ballots have been received by the close of the balloting period, the Standards and Technology Department, after receiving any editorial changes from the chairman, will proceed to process the proposal as in 6.10, below.

If negative ballots have been received, the TIA staff will enclose a response card with each negative ballot when they are forwarded to the chairman for resolution.

6.7 Comment Resolution

Purely editorial comments, once acknowledged, do not require further coordination with the originator.

Technical comments received with a "Yes" ballot shall be acknowledged when received, and the originator shall be advised, in writing, of the disposition of the comments. If adoption of the comments results in changes in the technical requirements of the proposed standard, the proposed standard will be reballoted (see 6.8 below).

Objections accompanying a "No" ballot shall be acknowledged when

received, and the chairman of the formulating group shall attempt to resolve the negative ballot in one of the following ways:

- (1) by explaining to the originator the rationale followed by the formulating group in arriving at the proposed standard. The chairman shall maintain a detailed written record of all correspondence and contacts on this matter.
- (2) by proposing changes to the proposed standard which are editorial only and which do not result in changes in the technical requirements of the proposed standard. Such revisions shall be supported by a consensus within the formulating group.

Note: If the originators of all negative ballots agree to withdraw their objections without technical changes in the proposed standard, they will be asked to do so in writing, and to return the response card to TIA as proof that the negative has been withdrawn. When all objections are withdrawn, processing will continue as in 6.10 below.

- (3) by proposing revisions to the technical requirements of the proposed standard which would remove the objections of the originator. Such revisions shall be supported by a consensus within the formulating group. If the revisions result in changes in the technical requirements of the proposed standard, the proposed standard shall be reballoted (see 6.8 below).

If one or more unresolved "No" ballots remain in spite of reasonable efforts to resolve them, and if a clear consensus is believed to exist, a default ballot shall be issued as described in 6.8.2, below.

Copies of all acknowledgements and correspondence with originators of comments shall be furnished to the Standards and Technology Department. This file is necessary when TIA submits the standard proposal for TSSC and ANSI approval.

6.8 Reballoting of a Standard Proposal

A proposed standard shall be reballoted if revisions have been made which change the technical requirements or increase the range of products to which the standard applies.

6.8.1 Complete Reballot

If, as the result of a major rewriting of large sections of a

proposed standard, the revisions are so broad as to merit a complete reballoting, a new standards proposal (see 6.4 above) is prepared and issued as in 6.4. The identifying number of the new standards proposal will be that of the original with a suffix letter added (e.g., SP-1111A).

6.8.2 Default Ballot

As an alternative to the above, a "default" ballot, also known as a 30-day letter ballot, may be issued whenever limited technical changes are made to a proposed standard in order to resolve a negative ballot.

A default ballot will also be issued when all reasonable efforts have been exhausted without success to resolve a negative ballot.

Voting on a default ballot is limited to those parties who responded to the original ballot⁹ and allows those parties to reaffirm or change their response, based upon the changes made and the statement of objections accompanying the previous negative ballots (if any). New objections may not be raised to unchanged material which has not been the subject of a negative ballot. A 30-day public review notice will be given to ANSI for publication in *Standards Action*.

The following information will be included with the default ballot:

- (1) a tally of the original votes cast (yes, yes with comments, no with comments);
- (2) a summary of which objections were resolved (and for which a written withdrawal has been received), a brief indication of how they were resolved and a revised tally of the votes after the withdrawal(s);

⁹ For two reasons, the default ballot is limited to those who originally responded. Firstly, it pertains only to changes resulting from the previous balloting or to unresolvable negative comments. Therefore, the purpose of the default ballot is to afford those interested parties who have responded to the standards proposal ballot an opportunity to reconsider their previous responses in the light of the changes made or of the unresolved comment. Secondly, because of the complex technical content of TIA standards, it is not unusual for the original recipient of a Standards Proposal ballot to forward it to the appropriate expert within his organization for study and response. In order to ensure that the default ballot reaches the person who actually voted, it must be sent directly to the respondent.

- (3) any changes which were made to the draft document (other than purely editorial changes);
- (4) negative ballots that remain unresolved, including the originator's statement of his objections, and a description of actions taken by the formulating group in an attempt to resolve those negative votes.

When the results of the letter ballot show a consensus in favor of adoption of the proposed standard, TIA will proceed toward approval of the standard as described in 6.10, below. If unresolved negative ballots still remain at this time, full documentation of the objections and of the efforts to resolve them shall be provided to the staff of the Standards and Technology Department for review and consideration by the TSSC.

6.9 One Company, One Vote Rule

TIA policy limits voting on standards proposals to one vote per company. When like votes (all yes or all no) are received from more than one individual in the same company, they shall be counted as one vote, unless it can be established by the respondents that they represent sectors of the company so different that they fall into different interest categories (manufacturer, user, etc.). Notwithstanding the above, all comments accompanying the multiple ballots shall be acknowledged and dealt with as described in 6.7.

When unlike votes (yes and no) are received from more than one individual in the same company, the chairman of the formulating group or his representative shall contact the company, and request that they consolidate and resolve their differing votes and comments, withdrawing the ballots which do not represent the consolidated company position unless it can be established by the respondents that they represent sectors of the company so different that they fall into different interest categories.

6.10 Standards Approval

Standards Proposals are approved as TIA Standards or Specifications as outlined in Section A4 of Annex A of this manual.

When the TSSC has verified that the standards proposal has been prepared in full compliance with the rules, policies and legal guides of TIA and that the balloting process has met the requirements of ANSI, pertinent forms (BSR 9) shall be submitted to ANSI to obtain approval from their Board of Standards Review.

6.11 Declaration as an ANSI/TIA/EIA Standard or Specification

After approval of a Standards Proposal by the Technical Standards

Subcommittee, and after receipt from ANSI of their Notification of Approval as an American National Standard, the material therein is declared by the Technical Committee chairman to be an ANSI/TIA/EIA Standard or Specification. Notification is then issued to industry by the Standards and Technology Department through the TIA Public Relations Office and other media means.

7 REAFFIRMATION, REVISION OR RESCISSION OF STANDARDS

7.1 Requirements

Within five years after publication of a TIA Standard, the formulating group shall initiate action to:

- (1) reaffirm that a review resulted in a decision that the technical content is valid and does not need change;
- (2) revise the standard to incorporate additional language or delete language that will change its technical content or meaning; or
- (3) rescind the standard following determination that the technical content is no longer of value.

NOTE: Revision and rescission require that a Standards Proposal be developed and processed in the same manner as that of a new proposed TIA Standard.

7.2 Procedures

ANSI and TIA rules require that standards must be revisited every five years. Approximately one year before the anniversary date the TIA Standards and Technology Department Staff will notify the formulating group chairman that the formulating group must undertake reaffirmation, revision or rescission of the Standard. Where appropriate, the Standards and Technology Department Staff will provide the chairman with a summary of all comments not incorporated into the standard during its development period five years earlier.

7.2.1 Procedures for Revision

The process of revising a TIA Standard is similar to the development of a new standard in that consensus shall be reached by industry ballot on changes to the technical content or meaning of the Standard. Usually the revision takes the form of a complete revision and reissuance of the Standard.

Note: When additional technical requirements need to be added to an existing standard without changing the previously

published requirements, or when only one or two portions of a large existing standard need to be revised, a formulating group may propose an **addendum** instead of a complete revision. When the standard is next revised, the addendum is incorporated in the revision.

Revision of or addition to the technical content of an existing TIA Standard, even in the form of an addendum, requires that the procedures for the development of a new TIA Standard be followed. (See 4.3 through 4.6, and 6.3 through 6.11.)

When a revision of a TIA Standard is approved, it will be reprinted with the same TIA number, but with a suffix revision letter. The date carried on the front cover of the revised standard will be the date of the revision. When issued, an addendum will carry the same number as the standard, followed by a dash and a numerical suffix.

7.2.2 Procedures for Reaffirmation

A formulating group shall recommend reaffirmation of a standard if it finds the technical content is still valid and does not require change.

Reaffirmation requires a formal industry balloting process. The procedures for the development of a new TIA Standard shall be followed. (See 4.3 through 4.5, and 6.3 through 6.11.) Copies of the standard will not normally be distributed with the industry ballots, but copies may be purchased through normal channels.

7.2.3 Procedures for Rescission

A formulating group shall recommend rescission of a standard if it determines that the standard is no longer required to meet the purpose for which it was written. (See 6.2.)

Rescission requires a formal industry balloting process. The procedures for the development of a new TIA Standard shall be followed. (See 4.3 through 4.5, and 6.3 through 6.11.) Copies of the standard will not normally be distributed with the industry ballots, but copies may be purchased through normal channels.

7.2.4 Editorial Changes in an Approved Standard

Once approved as a TIA standard and an American National Standard, no changes may be made in a standards document without going through the full consensus, comment and balloting process prescribed for a standards proposal. The only exception to this rule allowed by ANSI is the issuance of an erratum to correct a publishing error, and that only where the error should have been obvious to the user of the standard.